

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Alexandria Division**

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|---------------------------------|---|-----------------------------|
| BUSHNELL HAWTHORNE, LLC, |) | |
| Plaintiff, |) | |
| v. |) | |
| |) | Case No. 1:18-cv-760 |
| CISCO SYSTEMS, INC., |) | |
| Defendant. |) | |
| |) | |

MEMORANDUM OPINION

At issue in this patent infringement action are the parties' proposals regarding the appropriate construction of certain claim terms recited by plaintiff's patent, U.S. Patent No. 7,933,951 ("the '951 Patent"). Among these proposals is defendant's argument that certain claims of the '951 Patent, including the Patent's sole independent claim, are fatally indefinite. The parties appeared for a claim construction hearing on May 23, 2019, and this matter, including the issue whether the '951 Patent is indefinite, has been fully briefed and argued. Accordingly, the parties' claim construction disputes are now ripe for disposition.

I.

The '951 Patent is entitled "Systems and Methods for Discerning and Controlling Communication Traffic." The Patent purports to disclose "systems and methods . . . that allow for redirection of communication traffic over the Internet based, at least in part, on the type of higher-level communication protocol intended to be used." *See* '951 Patent, Abstract.

Claim 1 is the sole independent claim of the '951 Patent. The claim reads as follows:

1. A computer system for redirecting Internet communications, said system comprising:
 - a first processor that receives information from a computer at a point of origin;

- a second processor that analyzes the information for one or more pre-defined bit strings or character sets;
 - a third processor that receives return information from a computer that communicates with other computers on the Internet;
 - a fourth processor that analyzes the return information for said one or more pre-defined bit strings or character sets;
 - a fifth processor that
 - a) supplies one or more IP Addresses for the information requested if one or more of the pre-defined bit strings or character sets are not encountered,
 - b) supplies one or more second IP Addresses for the information requested if one or more different bit strings or character sets are encountered,
 - c) supplies one or more third IP addresses if one or more of the pre-defined bit strings or character sets are encountered and a higher level protocol can be inferred, and/or
 - d) allows the traffic to flow thru unmodified; and
 - a sixth processor that analyzes a request submitted to said different IP Address for one or more alternative bit strings or character sets,
- wherein the alternative bit strings or character sets are indicative of a particular higher level Internet communication protocol, and
- wherein the system further comprises maintaining a list of bit strings or character sets for which a different IP Address should not be supplied, wherein the list is updated one or more times after creation of the list, and wherein the list is updated based on monitoring of requests for: originating IP address, requested host-name, size of a DNS query, frequency of a single host-name or domain name, port number, date, and/or time.

'951 Patent at 21:9–45.

Dependent claims 8, 13, and 15 introduce additional limitations relevant here. Claim 8 recites “a seventh processor that receives a request to connect to a computer at said IP Address.” *Id.* at 22:6–7. Claim 13 recites “a tenth processor at the different IP address.” *Id.* at 22:23–24. And claim 15, in pertinent part, recites the sixth processor introduced by claim 1, namely “the sixth processor that analyzes a request submitted to said different IP address.” *Id.* at 22:29–30.

II.

The parties agree that the following four constructions of terms in claim 1 and various dependent claims reflect the manner in which a person of ordinary skill in the art would construe

the claim terms in the context of the '951 Patent. Accordingly, these four agreed constructions of the '951 Patent's claim terms are adopted for purposes of this action.

| Claim Term | Agreed Construction |
|--|--|
| "processor" (claim 1 and dependent claims) | "any hardware, software, or combination of two or more of either or both that can process information within the framework of a computer system" |
| "bit strings" or "character sets" (claim 1 and dependent claims) | "a sequence of bits or characters that represent information" |
| "higher level protocol" (claim 1 and dependent claims) | "a protocol for transmission of information over the Internet which is above the IP protocol layer" |
| "transparently" (claim 16) | "in a way that is not perceived by other users or servers" |

III.

In contrast to those terms, the parties sharply dispute the proper construction of five other claim terms in claims 1, 8, 13, and 15, namely (i) "said different IP Address," (ii) "a different IP Address," (iii) "said IP Address," (iv) "the different IP Address," and (v) "wherein the system further comprises maintaining a list of bit strings or character sets." The claim constructions proposed by the parties are separately addressed below.

A.

| Claim Term | Plaintiff's proposed construction | Defendant's proposed construction |
|---|--|--|
| "said different IP Address" (claims 1 and 15) | "an IP address supplied by the fifth processor that is different from the IP address for the information requested by the user or computer at the point of origin" | Indefinite. |

Independent claim 1 and dependent claim 15 each reference a "sixth processor that analyzes a request submitted to said different IP Address." '951 Patent at 21:32–33. Defendant argues that these claims are indefinite because there is no reasonably certain antecedent for the claim term "said different IP address." In response, plaintiff contends that despite the absence of

an explicit antecedent basis, it is nonetheless reasonably ascertainable to one skilled in the art¹ that the claim term means “an IP address supplied by the fifth processor that is different from the IP address for the information requested by the user or computer at the point of origin.” For the reasons that follow, defendant is correct that claims 1 and 15, and any dependent claims thereto, are invalid for indefiniteness.

It is well-established that “a patent must be precise enough to afford clear notice of what is claimed, thereby ‘appris[ing] the public of what is still open to them.’” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 909 (2014) (quoting *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996)). Accordingly, the Supreme Court has held that “a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Id.* at 901 (citing 35 U.S.C. § 112(b)).

Relevant here, courts have concluded that a claim term is indefinite if the term at issue appears to reference a previously defined term but lacks a clear antecedent basis. *See, e.g., In re Packard*, 751 F.3d 1307, 1310 (Fed. Cir. 2014); *24/7 Customer, Inc. v. LivePerson, Inc.*, 235 F. Supp. 3d 1102, 1108 (N.D. Cal. 2016); *see also Energizer Holdings, Inc. v. Int’l Trade Comm’n*, 435 F.3d 1366, 1370 (Fed. Cir. 2006) (“The requirement of antecedent basis is a rule of patent drafting, administered during patent examination.”). Yet, the absence of an antecedent basis may not render a claim term indefinite if the antecedent basis for the claim term is “present by

¹ Plaintiff asserts, and defendant does not dispute, that “one skilled in the art” relevant to the ’951 Patent is an individual who has at least a bachelor’s degree in Electrical Engineering or Computer Science and at least two years’ experience related to computer networking and communications, or an individual who has attained comparable knowledge through direct work experience in the field. Plaintiff’s description of a person skilled in the relevant art is thus adopted for purposes of assessing whether the ’951 Patent is sufficiently definite.

implication” or if the meaning of the claim term is nonetheless “reasonably ascertainable.” *See Energizer Holdings*, 435 F.3d at 1370–71.

Here, independent claim 1 and dependent claim 15 are indefinite because the claim term “said different IP address” that appears in those claims lacks an antecedent basis, which renders the meaning of the claim term unascertainable. In short, the term “said different IP address” appears to refer to a previously defined different IP address, but neither the claim language nor the specification provides a reasonably certain predicate for the term.

The term different IP address is neither defined nor used in the claim language before “said different IP address.” Thus, as both parties correctly acknowledge, the only possible antecedents in the claim language to which “said different IP address” may refer are the IP addresses mentioned in the fifth processor claimed in claim 1. That claim provides that the fifth processor performs one or more of the following steps:

- a) supplies one or more IP Addresses for the information requested if one or more of the pre-defined bit strings or character sets are not encountered,
- b) supplies one or more second IP Addresses for the information requested if one or more different bit strings or character sets are encountered,
- c) supplies one or more third IP Addresses if one or more of the pre-defined bit strings or character sets are encountered and a higher level protocol can be inferred, and/or
- d) allows the traffic to flow thru unmodified[.]

’951 Patent at 21:20–31.

It is uncertain which, if any, of the IP addresses listed in connection with the fifth processor is the antecedent different IP address referenced by the phrase “said different IP address” in claim 1. Presumably, the “one or more IP Addresses” described in step 5(a) of the fifth processor, the “one or more *second* IP addresses” described in step 5(b), and the “one or more *third* IP Addresses” described in step 5(c) differ from one another. Indeed, the claim language reflects that each step’s “one or more” IP addresses are distinct sets of IP addresses that are supplied under different

conditions. Yet, it also appears that the “one or more IP Addresses” of 5(a) and the “one or more second IP addresses” of 5(b) are expressly “for the information requested,” whereas the “one or more third IP addresses” of 5(c) are not likewise delimited.² Put simply, the multiple differences among the three “one or more” IP addresses supplied by the fifth processor demonstrate that it is not reasonably ascertainable which of the IP addresses supplied might be the different IP address referenced by the claim term “said different IP address.” See *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (explaining that “there is an indefiniteness problem if the claim language ‘might mean several different things and no informed and confident choice is available among the contending definitions’”) (quoting *Nautilus*, 572 U.S. at 911 & n.8) (internal quotation marks omitted).

Moreover, it is uncertain whether “said different IP address” refers to any of the “one or more” IP addresses supplied by the fifth processor because the term “said different IP address” is singular. Steps 5(a), 5(b), and 5(c), in contrast, describe sets of IP addresses, and each step may supply “one” IP address or “more” than one IP address. “Said different IP address” thus does not grammatically refer to any of the “one or more” IP addresses of steps 5(a), 5(b), and 5(c), because it appears that each of these steps may supply multiple IP addresses.³

² The construction of “said different IP address” proposed by plaintiff—namely, “an IP address supplied by the fifth processor that is different from the IP address for the information requested by the user or computer at the point of origin”—assumes that this latter potential difference, *i.e.* being “for the information requested” versus not necessarily being “for the information requested,” is the difference to which the claim term “said different IP address” refers. But plaintiff’s construction is not reasonably certain; plaintiff cites nothing in the claim language to demonstrate that a reader of the claim would not instead reasonably ascertain that the “said different IP address” is different because it is one of the “one or more” IP Addresses supplied by step 5(a) (or 5(b) or 5(c)) of the fifth processor and is thus different from the distinct sets of “one or more” IP addresses supplied by the other two steps of the fifth processor. Thus, the claim language reflects that the meaning of “said different IP address” proposed by plaintiff is not reasonably certain or ascertainable. See *Interval Licensing*, 766 F.3d at 1371 (holding that claim language that might mean two different things is indefinite).

³ The construction of “said different IP address” proposed by plaintiff—“an IP address supplied by the fifth processor that is different from the IP address for the information requested by the user or computer at the point of origin”—suffers from this difficulty as well. Like the claim term “said different address,” plaintiff’s proposed construction, “an IP address [. . .],” is singular. Thus, plaintiff’s proposed construction of the claim term does not

Accordingly, the claim language does not supply an antecedent basis for the claim term “said different IP address,” and the meaning of the term is not otherwise reasonably ascertainable from the surrounding claim language. To the contrary, the careless and confusing drafting of the claim language creates multiple ambiguities, explained above, that make it unclear which, if any, of the IP addresses supplied by the fifth processor is the antecedent “different IP address” referenced by “said different IP address.”⁴ Analysis thus turns to consider whether the ’951 Patent’s specification provides an antecedent basis or otherwise clarifies the meaning of “said different IP address.”

The specification does not clarify the meaning of the claim term “said different IP address” because the specification neither provides a clear antecedent basis for the claim term nor resolves the ambiguities in the claim language. As in the claim language, the term “different IP address” is never expressly defined in the specification. Thus, an explicit antecedent for “said different IP address” remains absent. Moreover, the multiple references in the specification to “a” or “the” “different IP address” fail to clarify the meaning of the claim term “said different IP address” because these references largely reflect the same confusing drafting error as the claim term. In particular, the specification repeatedly refers to “a” or “the” “different IP address” without identifying the particular IP address that is referenced or how and from what it is different. *See* ’951 Patent at 13:22, 45, 49, 52, 55, 64, 66; *id.* at 17:54, 55.

It is true, as plaintiff observes, that in one instance the specification describes an embodiment of the ’951 Patent that comprises “means for returning to the submitter of the request

grammatically map onto any of the “one or more” IP addresses described in steps 5(a), 5(b), and 5(c), because each of these steps may supply multiple IP addresses, not just one IP address.

⁴ This conclusion is underscored by the fact that plaintiff argued in its briefing that “said different IP address” referred to an IP address supplied by step 5(b) *or* 5(c) of the fifth processor but then contended at oral argument that “said different IP address” referred only to an IP address supplied by step 5(c). *Compare* Pl.’s Resp. Claim Constr. Brief, Dkt. 96, at 6–8, *with* 27, Tr. of Hr’g on May 23, 2019, Dkt. 121, at 30–31.

an IP Address that is different from that requested.” *Id.* at 17:42–53. But plaintiff is incorrect that this single reference in the specification makes it reasonably certain or ascertainable that the claim term “said different IP address” means an IP address that is different from the IP address for the information requested by the user. Indeed, the definition of “said different IP address” that plaintiff proposes is not supported by the many other references in the specification to “a” or “the” “different IP address.” As already noted, aside from the excerpt emphasized by plaintiff, the multiple references in the specification to “a” or “the” “different IP address” are ambiguous and do not identify the particular IP address to which the specification refers. In addition, it appears that several of the references in the specification to “the different IP address” refer to the IP address to which a request is submitted, *see id.* at 13:22, 64, 66; *id.* at 17:54, 55, which conflicts with plaintiff’s assertion that the “said different IP address” is different from the IP address that is requested. Given the multiple inconsistent, ambiguous references in the specification to “a” or “the” “different IP address,” there is no reasonable basis for the reader of the specification to conclude that the claim term “said different IP address” invokes the meaning of “different IP address” that is reflected only by the single, particular excerpt from the specification cited by plaintiff.

Accordingly, the specification, like the claim language, does not supply an antecedent basis for the claim term “said different IP address,” and the meaning of the term is not otherwise reasonably ascertainable from the specification’s various references to “a” or “the” “different IP address.” Instead, the specification reflects careless drafting errors similar to those in the claim language and thus fails to elucidate which, if any, of the IP addresses supplied by the fifth processor is the antecedent “different IP address” referenced by “said different IP address.”

In sum, as a result of the careless and confusing manner in which claims 1 and 15 and the relevant portions of the specification were drafted, the public is not “afford[ed] clear notice of what is claimed,” as the Patent Act requires. *Nautilus*, 572 U.S. at 898. Consequently, a person of ordinary skill in the art who reads the claims cannot discern with reasonable certainty whether a different system would infringe on the “sixth processor that analyses a request submitted to said different IP Address” claimed by the ’951 Patent because it is not clear which IP address is the “said different IP Address” that is targeted by the sixth processor.⁵ Thus, for the reasons stated above, the meaning of the claim term “said different IP address” is not “reasonably certain,” rendering claims 1 and 15 indefinite. *See id.* at 901.

B.

| Claim Term | Plaintiff’s proposed construction | Defendant’s proposed construction |
|---------------------------------------|--|--|
| “a different IP Address” (claim 1) | Plain meaning. | Indefinite. |

Independent claim 1 recites a further limitation at issue here: “wherein the system further comprises maintaining a list of bit strings or character sets for which a different IP Address should not be supplied.” ’951 Patent at 21:38–40. Plaintiff asserts that no construction is necessary

⁵ The expert declaration submitted by plaintiff, which asserts that a person of skill in the art would construe the various terms of the ’951 Patent discussed herein in accordance with plaintiff’s proposed constructions, does not compel a contrary finding here. The Federal Circuit has held that “it is permissible for the district court in its sound discretion to admit and use” extrinsic evidence, such as expert testimony, for purposes of resolving patent claim construction disputes. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1319 (Fed. Cir. 2005). In this respect, “extrinsic evidence in the form of expert testimony can be useful to a court . . . to provide background on the technology at issue, to explain how an invention works, to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field,” whereas “conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court.” *Id.* at 1318. These principles confirm that plaintiff’s expert declaration is neither useful nor persuasive in the instant claim construction determination. In short, plaintiff’s expert does not provide any technical background that would aid a reader who is unskilled in the art in interpreting the ’951 Patent. To the contrary, plaintiff’s expert declaration in large part simply repeats arguments that plaintiff makes in its brief, which do not require the aid of an expert to consider and resolve here. Accordingly, plaintiff’s expert declaration is not entitled to any significant weight in determining whether the various claim terms of the ’951 Patent discussed herein render the Patent’s claims indefinite.

because this limitation can be read in accordance with its plain meaning. Defendant argues that the claim term, particularly “a different IP address,” is indefinite because it suffers from many of the same difficulties already discussed with respect to claim 1’s earlier reference to “said different IP address.”

For the reasons already explained, *supra* part III.A, defendant is correct that the claim term “a different IP address” renders claim 1, and any dependent claims thereto, indefinite. Like the term “said different IP address,” the claim term “a different IP address” appears to allude to another IP address from which “a different IP address” is different. But the claim language and specification neither explain how or from what other IP address “a different IP address” differs nor otherwise clarify what constitutes “a different IP address.” Again, the only possible reference points in the claim language are the various “one or more” IP addresses supplied in steps 5(a), 5(b), and 5(c) of the fifth processor. But for the reasons already stated, *supra* part III.A, there is no way to discern with reasonable certainty which, if any, of these sets of “one or more” IP addresses is referenced by the claim term “a different IP address.” The specification also fails to provide clarity because, like the claim term, the various references in the specification to “a” or “the” “different IP address” fail to identify the “different IP address” that is referenced.

Accordingly, the confusing drafting of this part of claim 1 again fails to “afford clear notice of what is claimed.” *Nautilus*, 572 U.S. at 898. A person of ordinary skill in the art who reads the claim is not informed with reasonable certainty whether a different system would infringe on the limitation here, that the system claimed by the ’951 Patent “further comprises maintaining a list of bit strings or character sets for which a different IP address should not be supplied,” because it is not clear which IP address or which type of IP address is “a different IP address” targeted by the

recited list. Thus, for the reasons stated above, the meaning of the claim term “a different IP address” is not “reasonably certain,” rendering claim 1 indefinite. *See id.* at 901.

C.

| Claim Term | Plaintiff’s proposed construction | Defendant’s proposed construction |
|-----------------------------|-----------------------------------|-----------------------------------|
| “said IP Address” (claim 8) | Plain meaning. | Indefinite. |

Dependent claim 8 recites a “seventh processor that receives a request to connect to a computer at said IP Address.” ’951 Patent at 22:7–8. Plaintiff asserts that no construction is necessary because this limitation can be read in accordance with its plain meaning. Defendant argues that the claim term, particularly “said IP address,” suffers from many of the same difficulties already discussed, rendering claim 8 indefinite.

For the reasons already discussed, *supra* parts III.A & B, defendant is correct that the claim term “said IP address” renders claim 8 indefinite. As is true of the term “said *different* IP address,” no explicit antecedent basis exists for “said IP address” in either the claim language or the specification. And as with the previously discussed claim terms, the only possible reference points in the claim language are the various “one or more” IP addresses supplied in steps 5(a), 5(b), and 5(c) of the fifth processor. But for the reasons already stated, *supra* part III.A, there is no way to discern with reasonable certainty which, if any, of these sets of “one or more” IP addresses is referenced by the claim term “said IP address.” Further, plaintiff has cited nothing in the specification that clarifies the meaning of the claim term “said different IP address.”

As a result of this third confusing drafting error, a person of ordinary skill in the art who reads the claim is not informed with reasonable certainty whether a different system would infringe on the “seventh processor that receives a request to connect to a computer at said IP Address” claimed by the ’951 Patent because it is not clear which IP address is the “said IP address” that is

targeted by the seventh processor. Thus, for the reasons stated above, the meaning of the claim term “said IP address” is not “reasonably certain,” rendering claim 1 indefinite. *Nautilus*, 572 U.S. at 901.

D.

| Claim Term | Plaintiff’s proposed construction | Defendant’s proposed construction |
|---------------------------------------|--|--|
| “the different IP Address” (claim 13) | Plain meaning. | Indefinite. |

Dependent claim 13 recites a “tenth processor at the different IP Address.” ’951 Patent at 22:24. Plaintiff asserts that no construction is necessary because this limitation can be read in accordance with its plain meaning. Defendant argues that the claim term, particularly “the different IP address,” suffers from many of the same difficulties already discussed, rendering claim 13 indefinite.

For the reasons already explained, *supra* parts III.A, B & C, defendant is correct that the claim term “the different IP address” renders claim 13 indefinite. Like the term “said different IP address,” the claim term “the different IP address” appears to allude to another IP address from which “the different IP address” is different. But the claim language and specification neither explain how or from what other IP address “the different IP address” differs nor otherwise clarify what constitutes “the different IP address.” Again, the only possible reference points in the claim language are the various “one or more” IP addresses supplied in steps 5(a), 5(b), and 5(c) of the fifth processor. But for the reasons already stated, *supra* part III.A, there is no way to discern with reasonable certainty which, if any, of these sets of “one or more” IP addresses is referenced by the claim term “the different IP address.” The specification also fails to clarify the meaning of “the different IP address” because, like the claim term, the various references in the specification to “a”

or “the” “different IP address” fail to identify the “different IP address” referred to by the specification.

Once again, the confusing manner in which claim 13 is drafted fails to “afford clear notice of what is claimed.” *Nautilus*, 572 U.S. at 898. A person of ordinary skill in the art who reads the claim is not informed with reasonable certainty whether a different system would infringe on the “tenth processor at the different IP Address” claimed by the ’951 Patent because it is not clear which IP address is “the different IP address” at which the tenth processor is located. Thus, for the reasons stated above, the meaning of the claim term “the different IP address” is not “reasonably certain,” rendering claim 13 indefinite. *See id.* at 901.

E.

| Claim Term | Plaintiff’s proposed construction | Defendant’s proposed construction |
|--|--|--|
| “wherein the system further comprises maintaining a list of bit strings or character sets” (claim 1) | Plain meaning. | Indefinite. |

The last claim term disputed by the parties is the limitation in independent claim 1, which states: “wherein the system further comprises maintaining a list of bit strings or character sets for which a different IP Address should not be supplied.” ’951 Patent at 21:38–40. Plaintiff asserts that no construction is necessary because this limitation can be read in accordance with its plain meaning. Defendant argues that the claim term is indefinite—in addition to the reasons already discussed *supra* part III.B—because it improperly combines structural apparatus elements, the various processors of the “computer system,” with a method element, “maintaining a list.”

Defendant is correct that the claim term at issue improperly mixes apparatus and method elements, again rendering claim 1, and any dependent claims thereto, indefinite. As the Federal Circuit has explained, “a single claim covering both an apparatus and a method of use of that

apparatus” is indefinite “because ‘it is unclear whether infringement . . . occurs when one creates a[n infringing] system, or whether infringement occurs when the user actually uses [the system in an infringing manner].’” *UltimatePointer, L.L.C. v. Nintendo Co.*, 816 F.3d 816, 826 (Fed. Cir. 2016) (alterations in original) (quoting *IPXL Holdings, LLC v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005)). Yet importantly, an apparatus claim is “not necessarily indefinite for using functional language” if the apparatus claim “is clearly limited to a[n apparatus] possessing the recited structure” that is “capable of performing the recited functions.” *Id.* (quoting *Microprocessor Enhancement Corp. v. Texas Instruments Inc.* (“MEC”), 520 F.3d 1367, 1375 (Fed. Cir. 2008)) (emphasis and alteration in original).

These principles, applied here, point persuasively to the conclusion that the claim term “wherein the system further comprises maintaining a list” renders claim 1 indefinite because the claim term causes the apparatus claimed by claim 1, the “computer system,” to cover both structural apparatus elements and a method of use of the apparatus. First, the parties agree that claim 1 is an apparatus claim and that claim 1 covers structural components of the claimed apparatus, namely the six processors recited in claim 1. Second, it is clear that the additional element covered by claim 1, “maintaining a list,” constitutes a method of use of the computer system, not merely a capability of one of the computer system’s components. In short, the claim term “maintaining a list” is a method of use element because it requires the system to take action.⁶ Put another way, instead of describing a component of the computer system that has the capability

⁶ Plaintiff argues incorrectly that the claim term describes a capability of the computer system, not a method of use, because the limitation does not claim an activity performed by a user. This argument fails because “the law is clear that user-action is not the only cause of [mixed apparatus-method] indefiniteness.” *Power Integrations, Inc. v. ON Semiconductor Corp.*, No. 5:16-cv-06371-BLF, 2018 WL 5603631, at *16-17 (N.D. Cal. Oct. 26, 2018). Rather, courts have held that a claim is indefinite if it covers claims both an apparatus and an action that must be taken by that apparatus. *See, e.g., Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1339 (Fed. Cir. 2011) (concluding that the claim “A data transmitting device . . . comprising transmitting the trellis encoded frames” was indefinite for covering both apparatus and method elements, without concluding that the claim required user action).

to maintain a list, the language of the claim term attributes an active verb directly to the system of claim 1. Indeed, the claim term states that “the system *comprises*” an action: “maintaining a list.” Accordingly, the claim term renders claim 1 indefinite for covering both apparatus elements and a method element.

This conclusion finds firm support in *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331 (Fed. Cir. 2011), in which the Federal Circuit held that claim language closely similar to the claim term here was indefinite for covering both apparatus and method elements. The claim in that case read, in pertinent part, as follows:

A data transmitting device for transmitting signals corresponding to an incoming stream of bits, comprising:

first buffer means for partitioning [. . .];

fractional encoding means for receiving [. . .];

second buffer means for combining [. . .]; trellis encoding means for trellis encoding [. . .]; and

transmitting the trellis encoded frames.

Rembrandt, 641 F.3d at 1339. The Federal Circuit first concluded that the final element, “transmitting the trellis encoded frames,” was a method of use element. *Id.* And because the claim recited both that method element and apparatus elements—the buffer means, fractional encoding means, second buffer means, and trellis encoding means—the Federal Circuit held that the claim was indefinite. *Id.* (citing *IPXL*, 430 F.3d at 1384). Importantly, the Federal Circuit also noted that unlike the other elements in the claim, the last claim did not recite a structural component of the apparatus “for” taking the action of “transmitting the trellis encoded frames.” *Id.* Instead, the language of the claim attributed the action of “transmitting” directly to the apparatus described by the claim, which rendered the “transmitting” element a method of use element. *Cf. MasterMine Software, Inc. v. Microsoft Corp.*, 874 F.3d 1307, 1316 (Fed. Cir. 2017) (holding that a claim did

not mix apparatus and method elements because “unlike the claims in *Rembrandt*, the functional language here does not appear in isolation, but rather, is specifically tied to structure”).

The claim language in *Rembrandt* is quite similar to the claim term at issue here; thus, the Federal Circuit’s reasoning there is instructive in this case. Like the claim in *Rembrandt*, claim 1 of the ’951 Patent first states that the system comprises various apparatus elements, here the six processors described in claim 1. Then, as in *Rembrandt*, claim 1 states that the system “comprises” an action, “maintaining a list.” Compare ’951 Patent at 21:38 (“the system further comprises maintaining a list”) with *Rembrandt*, 641 F.3d at 1339 (“[a] data transmitting device . . . comprising . . . transmitting the trellis encoded frames”). Further, like the claim term in *Rembrandt*, the claim term at issue here, “the system further comprises maintaining a list,” does not recite language reflecting that the action is merely a capability of an apparatus element, e.g. “the system further comprises a list processor for maintaining a list.” Rather, as was true in *Rembrandt*, the action of “maintaining a list” is attributed directly to the computer system of claim 1.⁷ Thus, the Federal Circuit’s reasoning in *Rembrandt* confirms that the claim term here, “the system further comprises maintaining a list,” constitutes a method of use element, which renders claim 1 indefinite.

⁷ Plaintiff argues that a person skilled in the art would understand that maintaining a list is a capability of a component of the computer system, namely the eleventh processor recited in dependent claim 16, rather than a claimed method of use of the computer system. See ’951 Patent at 22:31–32 (reciting “wherein the list is maintained by an eleventh processor”). In essence, plaintiff argues that the claim term should be construed to include the apparatus element “eleventh processor”—i.e. “the system further comprises *an eleventh processor for maintaining a list*”—to render the claim term valid as an apparatus element featuring functional language. The Federal Circuit rejected this exact argument in *Rembrandt* and made clear that importing an apparatus element from a separate claim to correct a method element in the claim at issue constitutes an impermissible attempt to have the court “substantively re-draft [the patent’s] claims” unless “the correction is not subject to reasonable debate.” See *Rembrandt*, 641 F.3d at 1339–40. Here, as in *Rembrandt*, plaintiff’s proposed construction of claim 1 constitutes an impermissible re-drafting of the claim term “the system further comprises maintaining a list.” In particular, it is not beyond “reasonable debate” from the claim and specification whether the ’951 Patent claims *both* a method of use of the apparatus in claim 1, “maintaining a list,” *and* a means for that function in claim 16, the eleventh processor, or whether claims 1 and 16 together claim *only* an eleventh processor with the capability of maintaining a list. Accordingly, plaintiff’s attempt to re-draft the claim term at issue here fails for the reasons explained in *Rembrandt*.

The cases cited by plaintiff do not compel a contrary conclusion here. In each of those cases, the claim language described the capability of an apparatus and not a method of use because the claim used a means-plus-function format, such that no active verb was attributed directly to the claimed apparatus. For example, in *MEC*, 520 F.3d at 1371–72, 1375, the Federal Circuit held that claim language did not cover both apparatus and method elements because the claim used means-plus-function language, e.g. “the [claimed] pipelined processor further including [the means of] at least one write pipeline stage for [the function of] writing the result,” and thus described a capability of the apparatus, not a claimed method of use. It was therefore clear in that case that the claim was “limited to a pipelined processor possessing the recited structure and capable of performing the recited functions.” *Id.* at 1375.⁸ Here, by contrast, the language of claim 1 of the ’951 Patent attributes the verb “maintaining” directly to the claimed computer system and does not include language such as “for” to reflect that “maintaining a list” is only a capability of the claimed system or one of its components. Thus, unlike in *MEC*, the claim term at issue here, “the system further comprises maintaining a list,” describes a method of use of the apparatuses covered by claim 1.⁹

Accordingly, it is clear that claim 1 covers both apparatus and method elements, which fails to “afford clear notice of what is claimed” to a person of ordinary skill in the art who reads the claim. *Nautilus*, 572 U.S. at 898. In particular, the claim term “wherein the system further comprises maintaining a list” makes it unclear whether one infringes claim 1 of the ’951 Patent by

⁸ See also, *MasterMine Software*, 874 F.3d at 1316 (holding that functional language described a capability of the apparatus, not a method, because the functional language was specifically tied to component of the claimed apparatus, not to the claimed apparatus itself); *Finjan, Inc. v. Blue Coat Sys., Inc.*, No. 13-CV-03999-BLF, 2015 WL 3630000, at *13 (N.D. Cal. June 2, 2015) (same).

⁹ In contrast, other elements of claim 1 do employ means-plus-function language and thus make clear that the verb is a capability of a certain apparatus element and not a claimed method of use of the computer system. See, e.g., ’951 Patent at 21:9–11 (“A computer system . . . comprising: a first processor that receives information.”).

building the claimed computer system or by using the system to maintain a list of bit strings or character sets. See *UltimatePointer*, 816 F.3d at 826. Thus, for the reasons stated above, the boundaries of claim 1 are not “reasonably certain,” which renders claim 1 indefinite. *Nautilus*, 572 U.S. at 901.


IV.

In sum, for the reasons stated above, various terms in claims 1, 8, 13, and 15 of the '951 Patent—namely, (i) “said different IP Address,” (ii) “a different IP Address,” (iii) “said IP Address,” (iv) “the different IP Address,” and (v) “wherein the system further comprises maintaining a list of bit strings or character sets”—render those claims fatally indefinite. Put simply, the claims as drafted do not inform a person of ordinary skill in the art of the boundaries of the '951 Patent. Thus, each of these claims is invalid for indefiniteness.

Additionally, because claim 1, the sole independent claim of the '951 Patent, is invalid, and because the only remaining count of plaintiff's Second Amended Complaint is based on the '951 Patent, judgment must be entered in favor of defendant in this action. See *Nautilus*, 572 U.S. at 902 (“A lack of definiteness renders invalid ‘the patent or any claim in suit.’”) (quoting 35 U.S.C. § 282(b)(2)).

An appropriate order will issue.

Alexandria, Virginia
July 1, 2019



T. S. Ellis, III
United States District Judge